



1:8 Dual-Link DVI Distribution Amplifier

Advanced Graphics Display Technology



DESCRIPTION

The Datapath dL8 is an eight output distribution amplifier for ultra-high resolution Dual-Link DVI signals.

One Dual-Link DVI input, supporting graphics sources with pixel clocks up to 330MHz and resolutions beyond Quad-HD (3840x2160), can be delivered to eight outputs on separate DVI-D (Dual Link) connectors.

The Datapath dL8 is the perfect companion to up to eight Datapath X4 stand alone display wall controllers, each of which can accept one of the Dual Link DVI outputs from the dL8 and select four arbitrary regions from it for display on standard DVI (Single Link)/HDMI monitors. In this way display walls of up to 32 screens can be assembled quickly and easily. And since the dL8 guarantees that all eight outputs are exactly locked to the source, all these 32 screens can be frame-locked for optimum display of creative, dynamic content.

The Datapath dL8 presents a fully programmable EDID to the graphics source, allowing simple control of resolution and frame-rate.

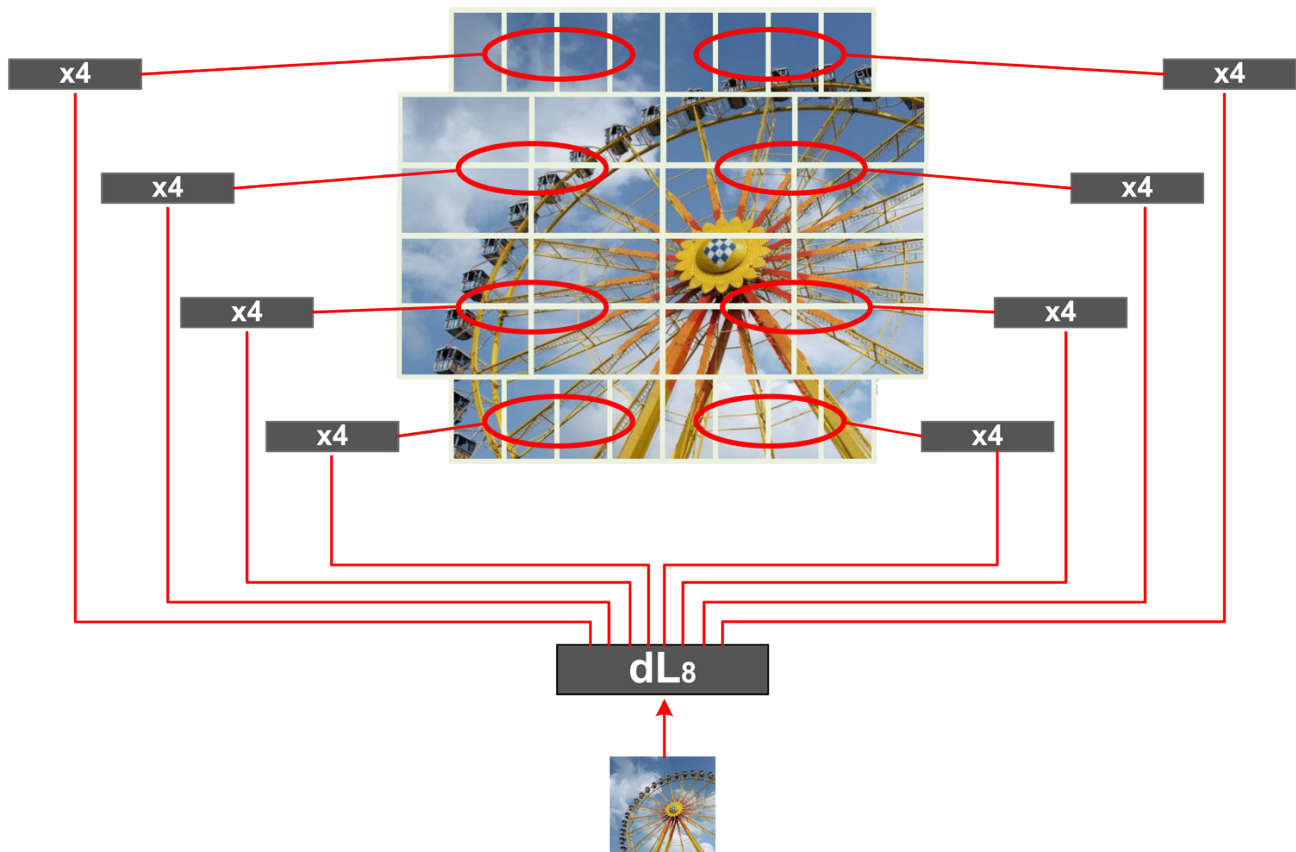
The EDID data can be programmed from a supplied Windows® application using the USB connection or can be simply sampled from a connected monitor or Datapath x4 using a front panel switch.

At high resolution, DVI signals cannot normally be guaranteed beyond 5m cables due to the nature of the signal losses inherent in the DVI cables and connectors. Datapath have added active equalization and re-clocking hardware on the dL8 input port which is able to compensate for these losses and support cable lengths of up to 20m even at full dual-link resolutions (330MHz pixel clocks). Lower resolutions will allow even longer cable lengths. The high quality re-clocking signal processing ensures that any timing skews that might be introduced by lower cost input cables can be corrected within the dL8, maximising the signal quality of the output signals.

EXAMPLE APPLICATION

Creative 32 screen display wall using a Datapath DL8 in conjunction with eight Datapath X4 units.

Frame rate conversion (supporting genlocking to the input), arbitrary region selection and upscaling of the selected sections to the output monitor requirements is provided as part of the functionality of the Datapath x4 stand alone wall controllers.



Dual-Link DVI Source
(eg. 4k x 3k @24Hz)

TYPICAL APPLICATIONS

- Support for up to 32-screen display walls when used in conjunction with up to 8 Datapath X4 stand alone display wall controllers.
- Distribution and signal conditioning of arbitrary DVI source signals – any resolution or frame rate that can be supported in either Single or Dual-Link DVI can be accepted.

SPECIFICATIONS

Physical Dimensions	19"-Rack mount (1U) (438mm x 40mm x 172 mm)
Input Connectors	DVI-D (Dual Link) USB (Type B) for host communications IEC mains power inlet
Output Connectors	8 x DVI-D (Dual Link)
Front panel Controls	Push button for EDID sampling Three LED indicator lamps (Power/Input/Status) and flashing feedback for USB communications or EDID button press.
Input Capabilities	Incorporates TMDS re-clocking equalizer to support up to 20m cables ⁽¹⁾ Programmable EDID to indicate preferred mode No limit to aspect ratios or frame rates of DVI signals that can be accepted, provided they remain within the Dual-Link 330MHz specification Input is not HDCP compatible.
Output Capabilities	Supports up to 5m cables into standard DVI receiver ⁽²⁾
USB Connection	Supports USB 2.0 for programming of input EDID parameters using Data-path dL8 Control application Operating system support: Windows XP, Windows Server 2003, Windows Vista, Windows Server 2008, Windows 7
Power Requirements	Universal power supply (100-240V). 25W maximum ⁽¹⁾
Operating Temperature	0 to 35 °C (32 to 96°F) Internal Fan cooling
Storage Temperature	-20 to 70 °C (-4 to 158°F)
Relative Humidity	5% to 90% non-condensing
Warranty	3 years

Notes:

(1) Provisional specification

(2) Output cable lengths can be extended when driving receivers with built in equalization – up to 20m for Datapath X4.

We are continuously developing the technology used within our product ranges delivering outstanding innovative solutions, therefore the specification may change from time to time.

MODELS AVAILABLE

Code	Description
dL8	1 to 8 Dual Link DVI Distribution Amplifier

All our products are shipped with the latest software available, unless stated otherwise. Special requirements may be organised by contacting our Sales team.